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10/781,529	02/17/2004	Stuart W. Daniel	2003-0689.01	2435

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EXAMINER

DENG, ANNA CHEN

ART UNIT	PAPER NUMBER
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2191

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,529	Applicant(s) DANIEL ET AL.	
	Examiner ANNA DENG	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 15-33 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to amendment filed on 1/15/2008.
2. Claims 1-33 are pending.

Response to Amendment

3. The objection to Specification is withdrawn in view of applicant's amendment.
4. The rejection under 35 U.S.C. 101 to claims 1-14 is withdrawn in view of applicant's amendment.

Election/Restrictions

5. Restriction of one of the following inventions is required under 35 U.S.C. 121:
 - (I). claims 1-14 are drawn to, classified in class 717, subclass 168.
 - (II). claims 15-33 are drawn to, classified in class 726, subclass 2.
6. The Claimed inventions are distinct, each from the other because of the following reasons:

Group (I), for example, claim 1 recite "A method of updating stored firmware of an imaging device having a first communication port connectable with a computer or network for receiving information and a second communication port for reading information from a portable memory source, the method comprising: accepting a connection from the portable memory source at the second communication port; accessing files stored on the portable memory source; and updating the stored firmware with at least one of the files stored on the memory source" that is classified to class 717, Software Development, subclass 168, software upgrading or updating.

Group (II), for example, claim 15, recites "A method of authenticating a user of an imaging device with a portable memory device connectable to the imaging device, the method comprising: communicating authentication information stored on the portable memory device to the imaging device; verifying the authentication information on the portable memory device; and upon verification, granting the user access to at least one function of the imaging device" that is classified to 726, Information security, subclass 2, Access control or Authentication.

Group (I) and Group (II) are independent or distinct subject matter, and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification (see MPEP 808.02), restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Douglas E. Erickson (Reg. No. 29,530) on 4/24/2008, a provisional election was made without traverse to prosecute the invention of Group (1), claims 1-14. Affirmation of this election must be made by applicant in replying to this Office action. Group (II), claims 15-33 are withdrawn from further consideration by the examiner (see 37 CFR 1.142 (b)), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Rothman et al. USPN 7,222,339 (hereinafter Rothman).

Per Claim 1 (Currently amended):

Rothman discloses:

- A method of updating stored firmware of an imaging device having a first communication port connectable with a computer or network for receiving information (col. 4, lines 56-59, “A “public” NIC (network interface controller) chip 210 is provided for supporting conventional

- network communication functions, such as to support communication between a blade and external network infrastructure”) and a second communication port for reading information from a portable memory source col. 4, lines 56-59, “A “public” NIC (network interface controller) chip 210 is provided for supporting conventional network communication functions, such as to support communication between a blade and external network infrastructure”; also, col. 5, lines 64-66, through col. 6, lines 6-14, “the firmware update framework may be implemented under an extensible firmware framework known as Extensible Firmware Interface (EFI)... The EFI framework includes provision for extending BIOS device (e.g., flash memory). More particularly, EFI enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices, option ROMs, various persistent storage devices (e.g., hard disks, CD ROMs, etc.), and even over computer networks”), the method comprising:
- accepting a connection from the portable memory source at the second communication port; (col. 4, lines 45-65, each blade comprises a separate computing platform that is configured to perform server-type functions, i.e., is a “server on a card.” Accordingly, each blade includes components common to conventional servers...these components include one or more processors 202 coupled to system memory 204...and a firmware storage device 208 (e.g., flash memory)...an RJ-45 console port 214, and an interface plane connector 216...and peripheral device connectors”; col. 6, lines 9-14, “EFI enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices, option ROMs, various persistent storage devices (e.g., hard disks, CD ROMs, etc.)”; emphases added);
 - accessing files stored on the portable memory source (col. 5, lines 32-44, “the platform firmware is stored in firmware device 208. In modern computer systems, firmware devices

typically comprise a rewritable non-volatile memory component, such as, but not limited to, a flash device or EEPROM chip. As used herein, these devices are termed “non-volatile (NV) rewritable memory devices.” In general, NV rewritable memory devices pertain to any device that can store data in a non-volatile manner...and provides both read and write access to the data”, emphases added); and

- updating the stored firmware with at least one of the files stored on the memory source (col. 5, lines 41-44, “all or a portion of firmware stored on an NV rewritable memory device may be updated by rewriting data (file) to appropriate memory ranges defined for the device”).

Per Claims 2:

Rothman discloses:

- recognizing the portable memory source upon connection with the second communication port (col. 9, lines 13-20, The pre-boot/boot framework of FIG. 3 may be implemented to enable update of various firmware, including system firmware (i.e., firmware stored on main board 201) and add-in firmware (e.g., firmware associated with optional add-on components and peripheral devices, stored in NV rewritable memory devices 222 and 224). This is facilitated, in part, by API's published by respective components/devices during the DXE phase, and through use of the Variable Services runtime service).

Per Claim 3:

Rothman discloses:

- generating an interruption signal upon connection of the portable memory source with the second communication port (col. 10, lines 26-34, system management interrupt (SMI), interrupt handler, system management interrupt (SMI)).

Per Claim 4:

Rothman discloses:

- periodically polling for connection of the portable memory source at the second communication port (col. 10, lines 15-19, System Management Mode (SMM), which has the ability to receive and respond to periodic System Management Interrupts (SMI) and execute corresponding SMI handlers configured to support inter-blade communication”).

Per Claim 5:

Rothman discloses:

- searching the portable memory source for files (col. 7, lines 51-60, “in contrast to Boot Services 306, Runtime Services 308 are available both during pre-boot and OS runtime operations. One of the Runtime Services that is leveraged by embodiments disclosed herein is the Variable Services. As described in further detail below, the Variable Services provide services to lookup, add, and remove environmental variables from both volatile and non-volatile storage. As used herein, the Variable Services are termed “generic” since they are independent of any system component for which firmware is updated by embodiments of the invention”; col. 8, lines 15-18, “The DXE dispatcher searches for drivers in the firmware volumes described by the HOB List.”).

Per claim 6:

Rothman discloses:

- files are all files that can be read by the imaging device (col. 12-13, lines 64-67 and lines 19, In some instances, an update may be fully effectuated via changes to configuration data for a corresponding component (e.g., firmware for a peripheral device, such as a disk drive), which are stored in an NV rewritable memory device. This is depicted by the

process flow illustrated for API Z in FIG. 6. In other instances, the update is effectuated by copying data from an update image to the NV rewritable memory device, typically but not limited to overwriting all or a portion of the memory space for the device corresponding to a current firmware image. Accordingly, in these instances the update handler will further write an update image to a memory buffer, as depicted the process flows in FIG. 6 corresponding to API's X and Y).

Per Claims 7:

Rothman discloses:

- files are files containing only firmware updates (column 13, lines 41-62, In response to the reset, the operations of blocks 502 and 504 are performed in the manner discussed above. However, when the determination of decision block 506 is evaluated this time, update variables do exist, causing the logic to flow to a block 524 in which the interface (DXE API) corresponding to a first update variable is called to update the firmware. Based on additional information contained in the variable data, the update is then performed via the API. In instances in which the update merely comprises updated configuration data that may be stored in the variable data, the update is effectuated by reading the updated configuration data and writing it to the firmware device corresponding to the update API. In instances in which the update requires a larger update image, the update image is read from the memory buffer identified by the Data parameter returned from a GetVariable call and written to an appropriate portion (memory address space) of the firmware device. In general, the location of the appropriate portion may be coded into the API itself, or may be obtained via the variable data. The foregoing process is repeated for each update variable until all of the update variables are processed in accordance with a decision block 526).

Per Claim 8:

Rothman discloses:

- automatically selecting a file to update firmware (col. 11, lines 12-31).

Per Claim 9:

Rothman discloses:

- presenting the files found in the search to a user (column 8, lines 10-17, After DXE Core 300 is initialized, control is handed to DXE Dispatcher 302. The DXE Dispatcher is responsible for loading and invoking DXE drivers found in firmware volumes, which correspond to the logical storage units from which firmware is loaded under the EFI framework. The DXE dispatcher searches for drivers in the firmware volumes described by the HOB List. As execution continues, other firmware volumes might be located. When they are, the DXE dispatcher 302 searches them for drivers as well).

Per Claim 10:

Rothman discloses:

- receiving at least one selection from a user, said at least one selection corresponding to at least one of the files to update firmware (col. 11, lines 17-24).

Per Claim 11:

Rothman discloses:

- verifying the contents of the selected file prior to updating the firmware (col. 12, lines 30-43).

Per Claim 12:

Rothman discloses:

- selecting at least one of the files on the portable memory device to update the firmware (col. 5, lines 64-66, col. 6, lines 9-14, “the firmware update framework may be implemented under an extensible firmware framework known as Extensible Firmware Interface (EFI)...EFI enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices...”).

Per Claims 13-14:

Rothman discloses:

- connection between the portable memory device and the second communication port is a direct/indirect connection (col. 10, lines 7-19, in a block 504, an OOB monitor driver is installed in a protected area in each blade. As discussed above, an out-of-band communication channel or network that operates independent of network communications that are managed by the operating systems is employed to facilitate inter-blade communication in an OS-transparent manner. In one embodiment, OOB communications are facilitated by a hidden execution mode known as the System Management Mode (SMM), which has the ability to receive and respond to periodic System Management Interrupts (SMI) and execute corresponding SMI handlers configured to support inter-blade communication).

Response to Arguments

10. Applicant's arguments filed on 1/15/2008 have been fully considered but they are not persuasive.

Applicants argued:

Rothman describes computing platforms and does not teach, suggest or describe an imaging device such as a printer. Rothman does not teach, suggest or describe updating the stored firmware of an imaging device (e.g., printer) by connecting a portable memory source at a communication port of the imaging device (e.g., printer).

Examiner response:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "an imaging device such as a printer") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's arguments, the recitation "updating stored firmware of an imaging device by connecting a portable memory source at a communication port of the imaging device" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In fact, Rothman teaches all the steps in body of the claim 1, recite accepting a connection from the portable memory source at the second communication port (Rothman, col. 6, lines 9-14, "EFI enables firmware, in the form of firmware modules and drivers, to be loaded from a variety of different resources, including primary and secondary flash devices, option ROM, various persistent storage devices (e.g., hard disks, CD ROMs, etc.)); accessing files stored on the portable memory source (Rothman, col. 5, lines 32-44, "the platform firmware is stored in firmware device 208. In modern computer systems, firmware devices typically comprise a rewritable non-volatile memory component, such as, but not limited to, a flash device or EEPROM chip. As used herein, these devices are termed "non-volatile (NV) rewritable memory devices." In general, NV rewritable memory devices pertain to any device that can

store data in a non-volatile manner...and provides both read and write access to the data"); and updating the stored firmware with at least one of the files stored on the memory source (col. 5, lines 41-44, "all or a portion of firmware stored on an NV rewritable memory device may be updated by rewriting data (file) to appropriate memory ranges defined for the device"). Thus, Rothman's disclose read on all the limitation in claim 1 of the present application.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Deng whose telephone number is 571-272-5989. The examiner can normally be reached on Monday to Friday 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from

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either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Anna Deng/

Examiner, Art Unit 2191

04/22/2008

/Wei Zhen/

Supervisory Patent Examiner, Art Unit 2191